INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: June 5, 2012

RE: US Steel Corporation – Gary Works / 089-31581-00121

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice.** The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot12/3/07

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June 5, 2012

Mr. Joseph Hanning
U.S. Steel Corporation - Gary Works
Penn Liberty Plaza I
1350 Penn Avenue, Suite 200
Pittsburgh, PA 15222-1211

Re: 089-31581-00121
Third Administrative Amendment to
Part 70 089-7663-00121

Dear Mr. Hanning:

U.S. Steel Corporation - Gary Works (USS-Gary Works) was issued a permit on August 18, 2006 for an integrated steel mill. A letter requesting the following:

1. The addition of four (4) conveyors to the CASP Coal Receiving and Handling system as insignificant activities and
2. Changes to the configuration of several control technologies
   a. Each coal dryer will exhaust to three (3) cyclones in parallel, rather than a single cyclone.
   b. Each coal dryer air handling system will be able to function with a heat recycle mode as well as a once through system.
   c. Each Particle Fusion Reactor (PFR) exhaust gas cleaning system will be equipped with two (2) cyclones in parallel rather than a single cyclone.
   d. The Cokonyx loadout vibratory screen feeders will be installed with the option to direct emissions to the PFR afterburners.

was received on March 7, 2012. Pursuant to the provisions of 2-7-11 the permit is hereby administratively amended as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Denny Vendt, at (800) 451-6027, and ask for Denny Vendt or extension 4-5300, or dial (317) 234-5300.

Sincerely,

for

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments

Attachments
JLA/dmv

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office
Compliance and Enforcement Branch

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

U.S. Steel - Gary Works
One North Broadway
Gary, Indiana 46402

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T089-7663-00121	
Issued by/Original signed by: Nisha Sizemore, Branch Chief Office of Air Quality	Issuance Date: August 18, 2006 Expiration Date: August 18, 2011

Significant Permit Modification No. 089-23680-00121, issued October 22, 2007
Administrative Amendment No. 089-25923-00121, issued on February 25, 2008
Administrative Amendment No. 089-26246-00121, issued on April 24, 2008
Administrative Amendment No.: 089-27151-00121, issued on January 12, 2009
Significant Permit Modification No. 089-26519-00121, issued Febuary 17, 2009
Significant Permit Modification No. 089-27690-00121, issued October 5, 2009
Significant Permit Modification No. 089-29236-00121, issued August 24, 2010
Minor Permit Modification No.: 089-30266-00121

Administrative Amendment No.: 089-31581-00121	
Issued by: Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 5, 2012

Section D.7 **Facility Operation Conditions**

Facility Description [326 IAC 2-7-5(15)]: Four (4) Blast Furnaces, designated as Blast Furnace No. 4, Blast Furnace No. 6, Blast Furnace No. 8 and Blast Furnace No. 14

(a) Raw materials shipped to the ore yard identified as IAOYO366, are transferred to the Highline, identified as IAHL0307, from which raw material shipments and coke are sent through the Stockhouse.

(b) The No. 14 Blast Furnace Stockhouse, constructed in 1979, modified in 2009 with the addition of a baghouse for particulate control, identified Blast Furnace No. 14 Stockhouse Baghouse, exhausting to stack IDSH0367, servicing Blast Furnace 14.

(c) The No 6 Blast Furnace Stockhouse constructed in 1979, controlled by dust suppression, services Blast Furnace No. 6. The No. 8 Blast Furnace Stockhouse constructed in 1979, controlled by dust suppression, services Blast Furnace No. 8.

(d) No. 4 Blast Furnace, constructed in 1917, with a maximum capacity of 200 tons per hour, identified as IABF0308, using a Blast Furnace Gas Distribution System to collect the blast furnace gas and using pulverized coal at a rate of 26 tons per hour, oil (from on-site contractor when it meets specifications) at a rate of 70 gallons per minute and/or coal tar (when the on-site contractor tar centrifuge is not operating) at a rate of 70 gallons per minute.

x 24 hr = 4800 T/D

(1) Three (3) No. 4 Blast Furnace Stoves identified as IAST0360, replaced in 1947, with a maximum heat input capacity of 350 MMBtu per hour total combusting blast furnace gas (BFG) and natural gas, exhausting to the combustion stack IA6160.

(2) No. 4 Blast Furnace Casthouse, identified as IABF0308, constructed in 1917, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IA3177, exhausting to casthouse roof monitor IA6010.

(3) One (1) Slag Pit, identified as IASP0311, with fugitive emissions.

(e) No. 6 Blast Furnace, constructed in 1910, with a maximum capacity of 200 tons per hour, identified as IBBFO341, using a Blast Furnace Gas Distribution System to collect the blast furnace gas and using pulverized coal injected at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate of 70 gallons per minute.

(1) Four (4) No. 6 Blast Furnace Stoves identified as IBST0361, replaced in 1997, with a maximum heat input capacity of 350 MMBtu per hour total, combusting Blast Furnace Gas (BFG) and natural gas exhausting to the combustion stack IB6168.

(2) No. 6 Blast Furnace Casthouse, identified as IBBF0341, constructed in 1910, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IB3178, exhausting to casthouse roof monitor IB6011.

(3) One (1) Slag Pit, identified as IBSP0335, with fugitive emissions.

(f) No. 8 Blast Furnace, constructed in 1909, with a maximum capacity of 183 tons per hour, identified as ICBFO354, using a Blast Furnace Gas Distribution System to collect the blast furnace gas and using pulverized coal injected at a rate of 26 ton per hour, oil at a rate of 70 gallons per minute and /or coal tar at a rate of 70 gallons per minute.

(1) Four (4) No. 8 Blast Furnace Stoves, identified as ICST0362, replaced in 1999, with a maximum heat input capacity of 325 MMBtu per hour total, combusting Blast Furnace Gas and natural gas, exhausting to the combustion stack IC6175.

(2) No. 8 Blast Furnace Casthouse, identified as ICBF0354, constructed in 1909, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IC3179, exhausting to cast house roof monitor IC6012.

(3) One (1) Slag Pit, identified as ICSP0363, with fugitive emissions.

(g) No. 14 Blast Furnace, constructed in 1974, with a maximum capacity of 450 tons per hour, identified as IDBF0369, using a Blast Furnace Gas Distribution System to collect the blast furnace gas and using pulverized coal injected at a rate of 80 tons per hour, oil at a rate of 150 gallons per minute and/or coal tar at a rate of 150 gallons per minute.

(1) Three (3) No. 14 Blast Furnace Stoves identified as IDST0359, constructed in 1974, with a maximum heat input capacity of 700 MMBtu per hour total, combusting blast furnace gas and natural gas, exhausting to the combustion stack ID6184.

(2) No. 14 Blast Furnace Casthouse, identified as IDBF0369, constructed in 1974 with emissions controlled by a baghouse, identified as ID3185, exhausting to stack ID6187 and fugitive emissions exhausting through the casthouse roof monitor ID6013;

(3) One (1) Slag Pit, identified as IDSP0371, with fugitive emissions.

(4) Pursuant to Significant Source Modification 089-20118-00121, issued October 20, 2005, the following activities involved in the No. 14 Blast Furnace Reline Project were approved for construction:

(A) Replacement of furnace refractory lining with new and thinner refractory brick.

(B) Replacement of furnace shell.

(C) Removal and replacement of the top charging system with a new "bell-less" charging system.

(D) Placement of new copper staves in the mantle area of the furnace.

(E) Installation of copper cooling plates and a new bustle pipe.

(F) Repair of the checker work brick in the stoves and various structural, mechanical and electrical repairs.

(G) Enlargement of the slag granulator and addition of a stack.

(H) Changes to the casthouse and casthouse emissions control system to improve capture efficiency of hoods at the tap holes, iron troughs and runners.

(I) Removal and replacement of the existing system for cleaning blast furnace gas with a more efficient scrubbing system.

(h) One (1) No. 14 Blast Furnace Slag Granulation Plant owned by U.S. Steel -Gary Works and operated by U.S. Steel - Gary Works as part of the slag processing operation. The granulation plant has a maximum capacity of 1,704,000 tons of steel mill slag per year, consisting of the following:

(1) One (1) hot slag quenching operation, constructed in 1991, directed to a hooded exhaust stack.

(2) Two (2) silos, constructed in 1991, for temporary slag storage.

(3) Two (2) belt conveyers, constructed in January 1995.

(4) One (1) storage silo and loadout bay, constructed in May 1995, with a capacity of 400,000 tons per year.

(i) One (1) blast furnace gas distribution system consisting of instrumentation and valves designed to limit the maximum pressure through the distribution system by venting excess blast furnace gas to the three (3) bleeder stacks equipped with Flare No. 1 identified as BG6073, constructed before 1920, Flare No. 2, identified as BG6074 constructed before 1920 and Flare No. 4 identified as BG6075, constructed in 1974.

(j) One (1) iron beaching process, constructed prior to 1965, identified as IMIB0378.

(k) One (1) transfer ladle maintenance operation, constructed prior to 1965, identified as, IMVM0375.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 Emission Offset Minor Limitation [326 IAC 2-3]

Pursuant to Construction Permit 089-2936-00133, issued July 2, 1993 and 326 IAC 2-3 (Emission Offset), the total granulation plant throughput shall not exceed 1,704,000 tons per 12 consecutive month period with compliance demonstrated at the end of each month. Therefore, the emission offset rule 326 IAC 2-3 does not apply.

D.7.2 PSD Minor Limit PM/PM_{10} [326 IAC 2-2]

In order render the requirements of PSD (Prevention of Significant Deterioration) not applicable for PM and PM_{10}, the Blast Furnace No. 14 Stockhouse Baghouse shall achieve 90% capture efficiency and the exhaust from stack IDSH0367 shall not exceed 2.57 lbs of PM per hour and 2.57 lbs of PM_{10} per hour.

Compliance with these limits will ensure that the PM and PM_{10} emissions increase from the modification permitted in Significant Permit Modification 089-27690-00121 shall be less than twenty-five (25) and fifteen (15) tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) are rendered not applicable to this modification.

D.7.3 Nonattainment New Source Review (NSR) Minor Limit [326 IAC 2-1.1-5]

In order render the requirements of Nonattainment NSR not applicable for $PM_{2.5}$, the Blast Furnace No. 14 Stockhouse Baghouse shall achieve 90% capture efficiency and the exhaust from stack IDSH0367 shall not exceed 2.19 lbs of $PM_{2.5}$ per hour.

Compliance with this limit will ensure that the $PM_{2.5}$ emissions increase from the modification permitted in Significant Permit Modification 089-27690-00121 shall be less than ten (10) tons per

year and shall render the requirements of 326 IAC 2-1.1-5-2 (Nonattainment New Source Review (NSR)) not applicable to this modification.

D.7.4 Particulate Emission Limitation [326 IAC 6.8-1-2(a)]

Pursuant to Construction Permit 089-1953-00133, issued March 18, 1991 and 326 IAC 6.8-1-2(a) (Particulate Matter Limitations for Lake County), the particulate matter emissions from the slag granulation process quenching hooded exhaust stack shall not exceed 0.03 grain per dry standard cubic foot (dscf).

D.7.5 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]

(a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected sources, the No. 4 Blast Furnace casthouse, No. 6 Blast Furnace casthouse, No. 8 Blast Furnace casthouse and No. 14 Blast Furnace casthouse, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.

D.7.6 Lake County PM_{10} Emission Requirements [326 IAC 6.8-2-38]

Pursuant to 326 IAC 6.8-2-38, PM_{10} emissions shall comply with the following:

(a) The PM_{10} emissions from the Blast Furnace No. 4 stoves Stack IA6160 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.

(b) The PM_{10} emissions from the Blast Furnace No. 6 stoves Stack IB6168 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.

(c) The PM_{10} emissions from the Blast Furnace No. 8 stoves Stack IC6175 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.

(d) The PM_{10} emissions from the Blast Furnace No. 14 stoves Stack ID6184 shall not exceed 0.029 pound per MMBtu of heat input and a total of 20.40 pounds per hour.

(e) The PM_{10} emissions from the Number 14 Blast Furnace Casthouse Baghouse Stack ID6187 shall not exceed 0.0090 grains per dry standard cubic feet and 38.57 pounds per hour.

(f) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes stack serving, and to each stack of multiple stacks serving multiple facilities when the facility description notes each stack serving.

D.7.7 Fugitive Dust Emission Limitations [326 IAC 6-4-2][326 IAC 6.8-10-3]

(a) Pursuant to 326 IAC 6-4-2:

(1) The iron beaching and ladle maintenance generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:

(A) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100\,(R) - U)}{U}$$

Where

P = Percentage increase
R = Number of particles of fugitive dust measured at downward receptor site
U = Number of particles of fugitive dust measured at upwind or background site

(B) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$PR = (1.5 \pm N) P$$

Where
N = Fraction of fugitive dust that is respirable dust;
PR = allowable percentage increase in dust concentration above background; and
P = no value greater than sixty-seven percent (67%).

(C) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.

(D) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.

(2) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.

(b) Pursuant to 326 IAC 6.8-10-3 Lake County Fugitive Particulate Matter Emissions Limitations, fugitive emissions from iron beaching and ladle maintenance generating fugitive emissions shall comply with the emissions limitations in Section C.5 - Fugitive Dust Emissions.

(c) Pursuant to 326 IAC 6.8-10-3(7)(A), the PM_{10} emissions from Blast Furnace No. 14 Stockhouse Baghouse Stack IDSH0367 shall not exceed 0.022 grain per dry standard cubic foot (dscf) and ten percent (10%) opacity.

D.7.8 Sulfur Dioxide (SO_2) Limitations [326 IAC 7-4.1-20(a)(1)(I)(J) and (K)

(a) Pursuant to 326 IAC 7-4.1-20(a)(1)(I)(J), and (K), the SO_2 emissions from the No. 4 Blast Furnace Stoves IAST0360, No. 6 Blast Furnace Stoves IBST0361, No. 8 Blast Furnace Stoves ICST0362 and No. 14 Blast Furnace Stoves IDST0359 shall comply with the following when the coke oven gas desulfurization unit is not operating:

Furnace	Emission Limit lbs/MMBtu	Emission Limit lbs/hr
Blast Furnace No. 4 Stove Stack	0.115	40.25 total
Blast Furnace No. 6 Stove Stack	0.115	40.25 total
Blast Furnace No. 8 Stove Stack	0.115	37.38 total
Blast Furnace No. 14 Stove Stack during periods when combusting blast furnace gas	0.134	93.50 total

Furnace	Emission Limit lbs/MMBtu	Emission Limit lbs/hr
Blast Furnace No. 14 Casthouse Baghouse Stack during periods when Blast Furnace No. 14 Stoves are combusting blast furnace gas.	---	115.0

(b) Pursuant to 326 IAC 7-4.1-20(b)(5) and (9), the SO_2 emissions from the No. 4 Blast Furnace Stoves IAST0360, No. 6 Blast Furnace Stoves IBST0361, No. 8 Blast Furnace Stoves ICST0362 and No. 14 Blast Furnace Stoves IDST0359 shall comply with the following when the coke oven gas desulfurization unit is operating:

Furnace	Emission Limit lbs/MMBtu	Emission Limit lbs/hr
Blast Furnace No. 4 Stove Stack	0.115	40.25 total
Blast Furnace No. 6 Stove Stack	0.115	40.25 total
Blast Furnace No. 8 Stove Stack	0.115	37.38 total
Blast Furnace No. 14 Stove Stack	0.134	93.50 total
Blast Furnace No. 14 Casthouse Baghouse Stack	---	115.0

D.7.9 Carbon Monoxide (CO) Limitations [326 IAC 9-1-2(2)]

Pursuant to 326 IAC 9-1-2(2), no carbon monoxide shall be discharged from the No. 14 Blast Furnace IDBF0369, waste gas stream, unless the gas stream is burned in one of the following: a direct-flame afterburner, boiler or recuperative incinerator. In instances where carbon monoxide destruction is not required, carbon monoxide emissions shall be released at such elevation that the maximum ground level concentration from a single source shall not exceed twenty percent (20%) of the maximum ground one hour Indiana ambient air quality value for carbon monoxide.

D.7.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Preventive Maintenance Plan is required for these facilities and any associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.7.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

(a) Not later than thirty (30) months after issuance of this permit (Permit No. T089-7663-00121) or two and one half (2 ½) years from the date of the most recent valid compliance demonstration which ever is earlier, in order to demonstrate compliance with Condition D.7.7, the Permittee shall perform PM_{10} testing on the No. 14 Blast Furnace Casthouse Baghouse Stack ID6187 using the appropriate methods to measure PM_{10} as listed in 326 IAC 6.8-4-1(1) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of the most recent valid compliance demonstration.

(b) Not later than 60 days after achieving the maximum capacity but no later than 180 days after startup of Blast Furnace No. 14 Stockhouse Baghouse, in order to demonstrate compliance with Conditions D.7.2 and D.7.7(c), the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on the Blast Furnace No. 14 Stockhouse Baghouse using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance stack test.

(c) In lieu of performing the initial compliance tests for PM_{10} and $PM_{2.5}$ in accordance with the schedules set forth in Condition D.7.11(b), should the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the

New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8, 2009, fail to be published at the time of the required PM_{10} and $PM_{2.5}$ testing, the Permittee may elect to test for PM_{10} and $PM_{2.5}$ within 180 after issuance of the new or revised condensable PM test method(s). Subsequent testing for PM_{10} and $PM_{2.5}$ shall not be effected by this condition and shall be performed in accordance with Conditions D.7.11(b).

(d) Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation wtih regard to the performance testing required by this condition.

D.7.12 Sulfur Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]

To demonstrate compliance with condition D.7.9, the Permittee shall perform Sulfur Fuel Sampling and Analysis. Section C - Sulfur Fuel Sampling and Analysis contains the Permittee's obligation with regard to the sampling and analysis required by this condition.

D.7.13 Particulate Matter and CO Control [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute, rule or this permit, the baghouses for particulate control shall be in operation and control emissions at all times the associated coal processing or drop point conveyors are in operation.

(1) Nos. 4, 6 and 8 Blast Furnace natural gas iron oxide fume suppression systems IA3177, IB3178, IC3179, shall be in operation in order minimize particulate matter emissions as follows:

(A) The iron and slag runners at the No. 4 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.

(B) The iron and slag runners at the No. 6 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.

(C) The iron and slag runners at the No. 8 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.

(2) The No. 14 blast furnace Casthouse Baghouse ID3185 shall be in operation at all times during casting operations at the No. 14 Blast Furnace Casthouse is in operation.

(3) The Blast Furnace No. 14 Stockhouse Baghouse shall be in operation at all times when material conveying and/or sizing operations at the Blast Furnace No. 14 Stockhouse are in operation.

(4) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

(b) Carbon Monoxide Emissions Control

The Blast Furnace Gas Distribution System Flare controls GC3629, GC3628 and GC3627 and bleeder stack Flare No. 1 BG6073, Flare No. 2 BG6074 and Flare No. 4 BG6075 shall be in operation and the pilot flame shall be present at all times when the No. 14 Blast Furnace, No. 4 Blast Furnace, No. 6 Blast Furnace and No. 8 Blast Furnace are in operation in order to minimize CO emissions.

D.7.14 Fugitive Dust Control

The dust suppression used as control for the fugitive particulate emissions from the granulation plant shall be applied as often as necessary to control fugitive dust.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.7.15 Visible Emissions Notations

(a) Visible emission notations of the No. 14 Blast Furnace Casthouse Baghouse Stack ID6187, Blast Furnace No. 14 Stockhouse Baghouse Stack IDSH0367, iron beaching, quenching hooded exhaust, transferring, conveying operations, and loadout bay shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation of this permit.

(f) The Permittee shall comply with the most current Continuous Compliance Plan visible emission evaluation program. Section C - Continuous Compliance Plan contains the Permittee's obligation with regard to the visible emission evaluation program required by this condition.

D.7.16 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the No. 14 Blast Furnace Cast house baghouse ID3185, at least once per day when the No. 14 Blast Furnace Casthouse is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 3 to 9 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation of this permit.

(b) The Permittee shall record the pressure drop across the Blast Furnace No. 14 Stockhouse Baghouse, at least once per day when the No. 14 Blast Furnace Stockhouse processes are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 3 to 9 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C -

Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation of this permit.

(c) The Permittee shall comply with the most current Continuous Compliance Plan for the baghouse operation, recording and maintenance. Section C - Continuous Compliance Plan contains the Permittee's obligation with regard to the baghouse operation, recording and maintenance required by this condition.

(d) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.7.17 General Record Keeping Requirements

(a) To document the compliance status with Condition D.7.1, the Permittee shall maintain records at the plant of the total tons of slag processed in the granulation plant per twelve (12) consecutive month period.

(b) To document the compliance status with Condition D.7.8, the Permittee shall maintain records in accordance with Section C – Sulfur Dioxide SO_2 Record Keeping (Entire Source).

(c) To document the compliance status with Condition D.7.15, the Permittee shall maintain records of once per day visible emission notations of the No. 14 Casthouse Baghouse Stack (ID6187), the Blast Furnace No. 14 Stockhouse Baghouse exhaust stack (IDSH0367), the iron beaching facility, quenching hooded exhaust, transferring, conveying operations, and loadout bay when in operation. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) To document the compliance status with Condition D.7.16, the Permittee shall maintain the records of the once per day pressure drop of the No. 14 Casthouse Baghouse and the Blast Furnace No. 14 Stockhouse Baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(e) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.7.18 General Reporting Requirements

A quarterly summary report to document the compliance status with condition D.7.1 and D.7.8 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

D.7.19 Actual to Projected Actual Applicability Test [326 IAC 2-2-2(d)] [326 IAC 2-2-3(c)]

(a) Pursuant to SSM 089-20118-00121, issued October 20, 2005, 326 IAC 2-2-2(d) and 326 IAC 2-3-2(c), the No. 14 Blast Furnace Reline Project shall not cause a significant net

emission increase for any of the pollutants listed in 326 IAC 2-2-1(xx) and 326 IAC 2-3-1(qq).

The significant net emission increase shall be determined using the Actual to Projected Actual Applicability Test.

Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) are not applicable.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when the new or modified equipment begins normal operation.

(c) If there is a reasonable possibility that the No. 14 Blast Furnace Reline Project may result in a significant emission increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 326 IAC 2-3-1 (mm)), the Permittee shall comply with the following:

(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and 326 IAC 2-3-1(ll)) at an existing emission unit, document and maintain the following records:

(A) A description of the project;

(B) Identification of any emission unit whose emissions of a regulated new source review (NSR) pollutant could be affected by the project;

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emission unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emission unit.

D.7.20 Volatile Organic Compounds (VOC) De Minimis [326 IAC 2-3-2(b)]

Pursuant to SSM 089-20118-00121, issued October 20, 2005 and 326 IAC 2-3-2(b), the VOC emissions increases for the five (5) calendar year period January 2000 to December 2005 plus the net emission increase from the No. 14 Blast Furnace Reline Project resulted in an emission increase less than the VOC de minimis level (25 tons per year).